REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of December 22, 2003 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due.

In paragraphs 1 and 2 of the Office Action, FIG. 1 was objected to under 37 C.F.R. § 1.84 (p)(5) because the reference character "30" did not appear in the description. In response, Applicants have amended the description to include the reference character "30". Applicants believe this amendment corrects the deficiencies and that no drawing correction is required. Accordingly, Applicants respectfully request that the 37 C.F.R. § 1.84 (p)(5) objection be withdrawn.

In paragraph 3, claims 1-6, 8-16, 18-22, 24-29, 31-39, and 41-45 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Number 6,496,209 to Horii (Horii). In paragraph 4, claim 23 has been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Number 5,261,044 to Dev *et al.* (Dev). In paragraph 5, claims 7, 17, 30, and 40 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Horii in view of Dev.

In response to the Office Action, Applicants have amended claim 1 to incorporate the limitations previously expressed in claims 2 and 6. Claim 2 and claim 6 have been canceled. Corresponding apparatus claim 24 has been similarly amended and claims 25 and 29 depending there from have been canceled. Claims 3 and 26 have been amended to maintain proper dependencies in light of claims 2 and 25 being canceled. Claims 5, 9, 28, and 32 have been amended to conform with the amendments made to the underlying independent claims (linguistically correct in light of the amendments to claims 1 and 24).

Claim 10 has been amended to incorporate the limitations previously expressed in claim 12, which has been canceled. Corresponding apparatus claim 33 has been similarly amended and corresponding claim 35 has been similarly canceled. Claims 16 and 39 have been amended to be consistent with the amendments to claims 10 and 33.

Claim 19 and corresponding apparatus claim 42 have been amended to incorporate the limitations previously expressed in claims 22 and 45 respectively. Claims 20 and 43 have been

amended to correct a previous drafting error where metric value choices written as conjunctive entries instead of disjunctive ones.

Claims 4, 14, 27, and 37 have been modified to clarify that the values for components are retrieved using software agents that monitor the components. Support for these amendments can be found in FIG. 1 and throughout the Applicants' specification.

Claims 3, 13, 26, and 36 have been amended to clarify that the indicators that are graphically presented are user configurable. Support for these amendments can be found on page 7, lines 14-16 that specifies that a quantized level for an indicator can be assigned using a predefined minimum and maximum threshold value. Additionally, on page 21, lines 4-9 various user GUI settings for displaying map information are detailed, such as displaying selected metrics (and corresponding indicators) on a rotating, time limited basis. Further, the cited section states that metric values displayed can be colored or made to flash in accordance with the value's corresponding state.

Claim 23 has been amended to clarify that multiple software agents remotely located from the processor can be used within a heterogeneous system to retrieve values from components. Additionally, claim 23 has been amended to detail that different quantized ranges are associated with different graphical representations. These associations can be user configurable. Support for multiple software agents in a heterogeneous system can be found in FIG. 1 and throughout the Applicants' specification. Support for the quantity ranges being associated with different graphical representations can be found in on page 6, lines 9-13. Support for the associations being user configurable can be found on page 21, lines 4-9 as described above.

Claim 46 has been added to clarify that the maximum and minimum values established for each of the metrics can be user configurable values. Support for this amendment can be found on page 7, lines 14-16. No new matter has been added as a result of these amendments.

Prior to addressing the rejections on the art, a brief review of the Applicants' invention is in order. The Applicants' claimed and disclosed subject matter teaches a system, method, and apparatus for dynamically exposing the nodes of a graphical display or a display map. Each of the nodes can present data metrics for a multitude components, where the components can be

distributed across a network. Monitored components can include both hardware and software components that utilize vastly different computing platforms, communication protocols, performance metrics, and the like. A multitude of different monitoring bots, or autonomous software agents, can be used as intermediaries between the nodes of the display map and the monitored components. A node can display information gathered by a multitude of different software agents. Displaying the multiple diversely located metric values upon a single display in a manner easy for a user to comprehend can facilitate the administration of heterogeneous systems distributed across a network space.

Each monitored component can be assigned a minimum and maximum value, where these values form a user-established operating range. Different users can establish different ranges for each metric. Within this established range, a multitude of discrete levels can be determined. Each of these levels can be associated with a different visual indicator. Different colors, color shading, and/or patterns can be assigned to each visual indicator. For example, an illustrative metric with three discrete levels can be associated with a green indicator when operating within a safe range, a yellow indicator when operating in a suspicious state, and a red indicator when operating outside safe parameters.

Turning specifically to the rejections of the art, in paragraph 3, claims 1-6, 8-16, 18-22, 24-29, 31-39, and 41-45 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Horii. Horii discloses a status display unit showing communicatively linked components as nodes linked via lines corresponding to communication links between the components. If an abnormal state is detected by the component (as described in column 9, lines 17-29) a message is conveyed to the status display unit. The status display unit determines whether the abnormal state should be indicated on the display. If so, at least one of a line representation and/or an icon for the node is altered to indicate the abnormal state. Different representations are used to indicate different abnormal conditions and to express a complicated state of operation, as noted at column 10, lines 27-33.

Referring specifically to claims 1, 10, 19, 24, 22, and 42, the Applicants' claims include the following limitations:

(A) defining a maximum and a minimum value for each of said metrics;

(B) quantizing discrete levels between said defined maximum and said defined minimum value; and

(C) assigning a unique indicator to each of said quantized discrete levels.

Status 1 shown in FIG. 9A of Horii is presented for teaching defining a maximum value and status 7 shown in FIG. 9G of Horii is presented for teaching defining a minimum value. Further, statuses 2-6 of FIGS. 9B-9F of Horii are presented for teaching quantizing discrete levels between the minimum and maximum values. The icons of FIGS. 9A-9B are presented for teaching assigning unique indicators for the quantized levels. Applicants respectfully disagree.

As noted in column 1, lines 15-60 of Horii, FIGS. 9A-9G show examples of prior art icon usage as per a Japanese Patent for a GPS navigation system. FIGS. 9A-9G visually represent binary operational states of two positioning systems. The states shown for each system are operational/inactive and normal/ abnormal. Specifically, FIG. 9A illustrates that both systems are "normal" or "operated", as discussed at column 1, lines 34-35. FIG. 9F represents both systems as "abnormal" or "not operated", as discussed at column 1, lines 52-53.

Appreciably, FIGS. 9A-9G do not teach expressing network metrics as icons. Horii fails to relate the background art of the Japanese GPS patent to Horii's teachings concerning network states. Moreover, Horii teaches against using representations such as those of FIGS. 9A-9G since "a range which can be expressed (by FIGS. 9A-9G) is limited and thus there arises a problem in that a complicated state of operation cannot be easily expressed", as noted at column 1, lines 65-67. That is, Horii expressly teaches away from visually representing metrics in the manner illustrated in FIGS. 9A-9G. Instead, the Japanese GPS patent refers to representing binary states and not numeric values or metric ranges. Accordingly, FIG. 9A does not teach defining a maximum value and FIG. 9G does not teach establishing a minimum value for a metric. Similarly, FIGS. 9B-9F fail to teach quantitizing discrete levels.

Referring to claims 3, 13, 21, 36, and 44, FIGS. 9A-9B of Horii have been referenced for the proposition that a different color, a different shade and/or a different pattern can be used to indicate each of the quantized discrete levels. As noted, FIGS. 9A-9B fail to provide any teaching regarding a value range, segmenting a range by discrete levels, or assigning different icons to these levels. Accordingly, the cited portions of Horii fail to teach the referenced claims.

Referring to claims 4, 14, 27, and 37, the Applicants teach using software agents to gather metrics from distributed network components. Horii teaches that components are to be self-monitoring and are to convey abnormal states to a network address corresponding to the display unit (column 6, lines 53-57 of Horii). Consequently, Horii provides no teaching regarding software agents, and actually teaches away from their usage.

In light of the above remarks, Applicants have shown that Horii fails to anticipate the Applicants' invention. Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections with respect to claims 1-6, 8-16, 18-22, 24-29, 31-39, and 41-45 is respectfully requested.

In paragraph 4 of the Office Action, claim 23 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Dev. Applicants respectfully disagree.

Dev discloses a layered network management system. The layers include a user interface 10, a virtual network machine 12, a device manager 14, and a network 18 containing a multitude of monitored network components. All devices in the network layer 18 convey information to the device communication manager 14. The device communication manager 14 converts the communication protocol of network devices into a standardized protocol established for the network management system. The virtual network machine 12 is a network management server that can centrally gather device information, store this information in a database 16, and serve network information to one or more user interfaces 10. Each of these user interfaces can have interface specific settings via the view personality module 20.

Dev defines a server that centrally manages network data, whereas the Applicants' agents are decentralized autonomous software objects distributed at suitable locations within a heterogeneous environment. Each software agent can be configured to monitor a particular component to which the agent has been assigned. Accordingly, the virtual network machine 12 containing the database manager is a complex, computationally heavy, centralized server, whereas a software agent is a discrete software unit uniquely constructed to monitor selected component attributes in a dedicated and efficient manner.

Additionally, Dev provides no teaching concerning establishing different quantized ranges for metrics of monitored components. Nor does Dev teach associating and displaying different icons for the different quantized ranges. Accordingly, as Dev fails to anticipate claim

23 of the Applicants' invention, withdrawal of the 35 U.S.C. § 102(b) rejection with regard to claim 23 is respectfully requested.

In paragraph 5, claims 7, 17, 30, and 40 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Horii in view of Dev. Horii is concerned with presenting defined abnormal network conditions as distinguishable icons. Dev discloses a complex, centrally managed system for an interactive and hierarchically layered network status display system. Neither, Horii, Dev, nor any combination thereof teaches or suggests establishing a minimum and/or maximum value for a multitude of metrics. Neither, Horii, Dev, nor any combination thereof teaches or suggests quantizing operational states of metrics into a multitude of discrete levels. Neither, Horii, Dev, nor any combination thereof teaches or suggests associating and displaying different indicators to each of these levels. Since every claimed limitation must be taught or suggested by prior art for a rejection to be proper under 35 U.S.C. § 103(a), Applicants respectfully request the withdrawal of the 35 U.S.C. § 103(a) rejections with respect to claims 7, 17, 30, and 40.

In light of the above, Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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